

AMENDMENTS TO THE CLAIMS:

This listing of the claims will replace all prior versions, and listings, of the claims in this application.

Listing of Claims:

1. (Currently Amended) A mobile station comprising:

a transceiver comprising a transmitter circuit having a transmit RF filter that passes a transmit band of frequencies that is partitioned into transmit frequency channels and a receiver circuit having a receiver RF filter that passes a receive band of frequencies that is partitioned into receiver frequency channels;

an antenna coupled to an output of said transmitter circuit and to an input of said receiver circuit; and

circuitry, responsive to a currently selected RF channel, for compensating for a non-ideal operation of said RF filters over a full bandwidth range of said transmit and receive frequencies by compensating a signal to be transmitted in case of transmission and by compensating a received signal in case of reception.

2. (Original) A mobile station as in claim 1, wherein said compensating circuitry compensates for RF filter operation in a transmit RF channel that is nearest to said band of receive RF frequencies.

3. (Original) A mobile station as in claim 1, wherein said compensating circuitry compensates for RF filter operation in a receive RF channel that is nearest to said band of transmit RF frequencies.

4. (Previously Presented) A mobile station as in claim 1, wherein said compensation circuitry is

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comprised of at least one of digital logic and a digital signal processor (DSP) device.

5. (Currently Amended) A mobile station as in claim 1, wherein said compensation circuitry is comprised of a finite impulse response (FIR) device, wherein compensating the signal to be transmitted is accomplished by one of the group consisting of changing values of taps of the FIR device and changing a number of taps of the FIR device.

6. (Original) A mobile station as in claim 1, where said transmit range of frequencies is about 60MHz, where said receive range of frequencies is about 60MHz, and where said transmit range of frequencies and said receive range of frequencies are separated by about 20MHz.

7. (Original) A mobile station as in claim 1, where said transmit range of frequencies is about 60MHz that is partitioned into 12 frequency channels, where said receive range of frequencies is about 60MHz that is partitioned into 12 frequency channels, and where a highest frequency channel in said transmit range of frequencies and a lowest frequency channel in said receive range of frequencies are separated by about 20MHz.

8. (Currently Amended) A method for operating a mobile station comprising:

providing the mobile station with a transceiver having a transmitter circuit having a transmit RF filter that passes a transmit band of frequencies that is partitioned into transmit frequency channels and a receiver circuit having a receiver RF filter that passes a receive band of frequencies that is partitioned into receiver frequency channels;

coupling an antenna to an output of said transmitter circuit and to an input of said receiver circuit; and

responsive to a currently selected RF channel, compensating for a non-ideal operation of said RF filters over a full bandwidth range of said transmit and receive frequencies by compensating a signal to be transmitted in case of transmission and by compensating a

received signal in case of reception.

9. (Original) A method as in claim 8, wherein said step of compensating compensates for RF filter operation in a transmit RF channel that is nearest to said band of receive RF frequencies.

10. (Original) A method as in claim 8, wherein said step of compensating compensates for RF filter operation in a receive RF channel that is nearest to said band of transmit RF frequencies.

11. (Original) A method as in claim 8, wherein said step of compensating comprises operating at least one of digital logic and a digital signal processor (DSP) device.

12. (Currently Amended) A method as in claim 8, wherein said step of compensating comprises operating a finite impulse response (FIR) device, wherein the compensating of the signal is accomplished by changing a number of taps of the FIR device.

13. (Original) A method as in claim 8, wherein said transmit range of frequencies is about 60MHz, where said receive range of frequencies is about 60MHz, and where said transmit range of frequencies and said receive range of frequencies are separated by about 20MHz.

14. (Original) A method as in claim 8, wherein said transmit range of frequencies is about 60MHz that is partitioned into 12 frequency channels, where said receive range of frequencies is about 60MHz that is partitioned into 12 frequency channels, and where a highest frequency channel in said transmit range of frequencies and a lowest frequency channel in said receive range of frequencies are separated by about 20MHz.

15. (Previously Presented) A circuit comprising means for coupling to a transceiver having a transmitter circuit comprising at least one transmit radio frequency (RF) filter that passes a transmit band of radio frequencies that is partitioned into transmit RF channels and a receiver circuit having at least one receiver RF filter that passes a receive band of radio frequencies that is partitioned into receive RF channels and means for selectively compensating, in accordance with

a currently used RF channel, for at least one of RF filter operation in a transmit RF channel that is nearest to the receive band of RF frequencies and for RF filter operation in a receive RF channel that is nearest to the transmit band of RF frequencies.

16. (Previously Presented) A circuit as in claim 15, embodied at least in part by a programmed digital signal processor.

17. (Previously Presented) A circuit as in claim 15, where the receiver circuit comprises a direct conversion receiver.

18. (Previously Presented) A circuit as in claim 15, where a transmit range of frequencies is about 60MHz, where a receive range of frequencies is about 60MHz, and where said transmit range of frequencies and said receive range of frequencies are separated by about 20MHz.

19. (Previously Presented) A circuit as in claim 15, where a transmit range of frequencies is about 60MHz that is partitioned into 12 RF channels, where a receive range of frequencies is about 60MHz that is partitioned into 12 RF channels, and where a highest transmit RF channel and a lowest receive RF channel are separated by about 20MHz.

20. (Currently Amended) A circuit as in claim 15, comprising part of a wireless communications device, wherein a signal to be transmitted is compensated by being predistorted digitally.

21. (New) A circuit as in claim 20, wherein a bandwidth of the signal to be transmitted is greater than 10% of a bandwidth of an RF filter bandwidth.

22. (New) A mobile station as in claim 1, wherein a bandwidth of the signal to be transmitted is greater than 10% of a bandwidth of an RF filter bandwidth.

23. (New) A method as in claim 8, wherein a bandwidth of the signal to be transmitted is greater than 10% of a bandwidth of an RF filter bandwidth.

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24. (New) A method as in claim 12, wherein the changing of the number of taps of the FIR device is implemented in a digital baseband.

25. (New) A mobile station comprising:

a transceiver comprising a transmitter circuit having a transmit RF filter that passes a transmit band of frequencies that is partitioned into transmit frequency channels and a receiver circuit having a receiver RF filter that passes a receive band of frequencies that is partitioned into receiver frequency channels;

an antenna coupled to an output of said transmitter circuit and to an input of said receiver circuit; and

circuitry, responsive to a currently selected RF channel, for compensating for a non-ideal operation of said RF filters over a full bandwidth range of said transmit and receive frequencies by predistorting a signal to be transmitted.